

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

### **MARKET DATA: FEBRUARY 2017**

EquipmentWatch remains the largest sales database on the planet with 20x the sales data of any other source.

\$28,047,542,843

**RESALE** 

\$27,824,092,000

366,474 Assets

**AUCTION** 

\$223,450,843

8,070 Assets

The EquipmentWatch Market Report™ is a monthly resource for the construction, lift/access, agriculture and commercial truck industries to make better-informed decisions by leveraging key equipment values, market activity, age and usage metrics.

How is the Price Stability INDEX calculated?

#### For more detailed articles, visit EquipmentWatch Intelligence online. **MARKET SUMMARY** MONTH OVER MONTH YEAR OVER YEAR MARKET ACTIVITY MARKET METRICS **MARKET METRICS** PRICE STABILITY INDEX TO 0.0% **7** 3.0% **V** 0.2% **V** 0.5% 99.72 CONSTRUCTION **VALUES VALUES** FMV FLV FMV FLV 95 \$15,567,562,619 174,244 105 13.2% **5.6% T** 15.2% **▲ 1235.0%** VOLUME **VOLUME** MARKET VALUE **ASSETS** DEFLATED STABLE INFLATED RESALE RESALE **AUCTION AUCTION T** 1.7% 99.91 LIFT/ACCESS **7** 3.1% **7** 3.7% **▼** 0.1% VALUES. **VALUES** 95 FMV FIV FMV FIV V 105 40,029 \$1,271,344,218 **7** 30.0% **29.4% 4.7% ▲ 3310.0%** MARKET VALUE ASSETS **VOLUME VOLUME** DEFLATED STABLE INFLATED RESALE **AUCTION** RESALE **AUCTION** 99.42 **7.7%** ▼ 8.2% **▲** 0.3% **▲** 0.1% **AGRICULTURE** VALUES. VALUES. 95 105 FLV FMV FLV FMV \$8,663,008,580 102.576 **2.8% V** 19.5% **V** 21.0% **225.2%** MARKET VALUE **ASSETS** VOLUME VOLUME STABLE DEFLATED INFLATED RESALE **AUCTION RESALE AUCTION V** 6.5% **V** 6.3% **V** 0.2% 99.03 **COMMERCIAL TRUCK VALUES V** 0.9% **VALUES** FMV FLV FMV FLV 95 105 lacksquare\$2,545,627,426 57,695 **63.7% 6.6%** VOLUME **1.2% ▲** 795.6% MARKET VALUE ASSETS **VOLUME** DEFLATED STABLE INFLATED **RESALE AUCTION** RESALE **AUCTION**



SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

CONSTRUCTION

**OVERALL** 

TYPE TRENDS

BRAND TRENDS

**REGIONAL TRENDS** 

How is the Price Stability INDEX calculated?



#### MARKET PERFORMANCE

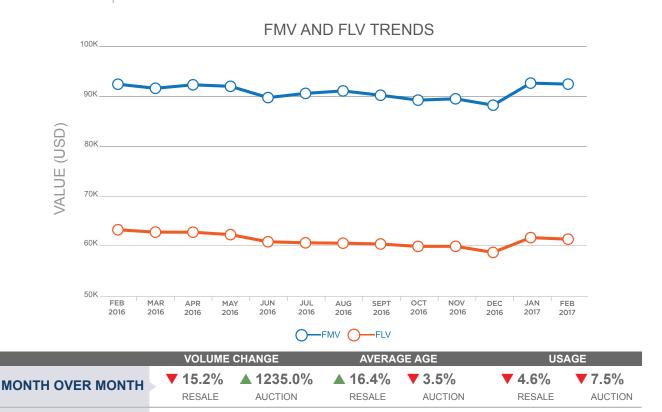
February 2017 was a strong month for construction equipment on the auction channel. Auction activity skyrocketed in February thanks to annual mega-auctions, while resale activity dropped 15% from January. This drop, alongside average FMV declines of -0.2%, helped return the market to a Stable rating on the Price Stability Index.™

#### **MARKET HIGHLIGHTS**

- Auction activity ballooned in February, rising 1235% over January levels--not surprising, given that January tends to exhibit the lowest auction activity of the year and February tends to exhibit the highest.
- Relative to last year, the auction channel showed a 5.6% increase in activity against an average 0.5% decrease in FLV.
- Average age and usage fell on the auction channel in February as equipment sellers took advantage of a busy auction market to dispose of newer, less-utilized equipment.

#### MARKET FORECAST

Auction activity is expected to remain high in March, but still below the massive volume of February. We expect the resale channel will show significant market activity increases over the next few months before dropping off in the summer months.



**V** 0.9%

**RESALE** 

**11.2%** 

AUCTION

YEAR OVER YEAR

**13.2%** 

RESALE

**5.6%** 

**AUCTION** 

**RESALE** 

**7** 3.3%

**V** 18.4%

**AUCTION** 

APRIL 19, 2016 VERSION: PREMIUM | UPDATED MONTHLY

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

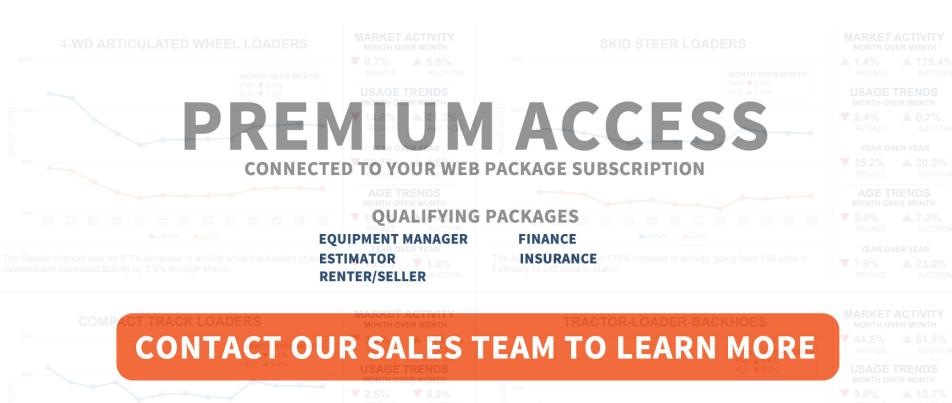
**CONSTRUCTION** 

**OVERALL** 

**TYPE TRENDS** 

BRAND TRENDS

**REGIONAL TRENDS** 







SUMMARY

CONSTRUCTION

LIFT/ACCESS

AGRICULTURE

COMMERCIAL TRUCK

LIFT/ACCESS

**OVERALL** 

TYPE TRENDS

BRAND TRENDS

**REGIONAL TRENDS** 

How is the Price Stability INDEX calculated?



#### **MARKET PERFORMANCE**

Lift values remained relatively even across both channels in February compared to January. Values are over 3% lower as compared to the month before, but both FMV and FLV are over 3% lower compared to February 2016. The overall market value and the number of assets increased by a large amount as compared to January.

### **MARKET HIGHLIGHTS**

- FMV market activity decreased in February due to the high amount of auctions that occurred in February.
- Average age increased in both channels in February, while FLV usage declined.
- The Price Stability Index<sup>™</sup> was 99.91 in February, coming the closest to the most stable score of 100.00 since May of 2016.

#### MARKET FORECAST

We should expect to see values remain relatively even again in March, with auction activity remaining high once again due to the large number of auctions that take place every year in February and March.







	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 4.7% RESALE	▲ 3310.0% AUCTION	▲ 11.0% RESALE	▲ 4.5% AUCTION	▲ 0.9% RESALE	▼ 22.9% AUCTION
YEAR OVER YEAR	▼ 30.0% RESALE	▲ 29.4% AUCTION	▼ 1.9% RESALE	▲ 15.6% AUCTION	<b>▲ 5.7%</b> RESALE	▼ 1.7% AUCTION

LIFT/ACCESS

**NEXT** 

TYPE TRENDS

**APRIL 19. 2016 VERSION: PREMIUM | UPDATED MONTHLY** 

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

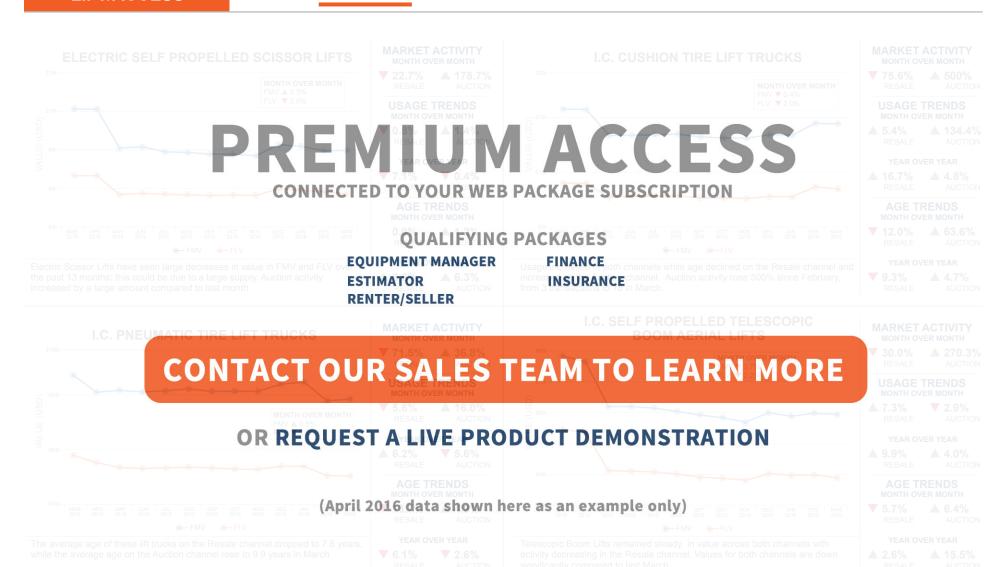
COMMERCIAL TRUCK

LIFT/ACCESS

TYPE TRENDS

**BRAND TRENDS** 

REGIONAL TRENDS



LIFT/ACCESS



SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

How is the Price Stability INDEX calculated?





### **MARKET PERFORMANCE**

FMV and FLV were up minimal percentage points month over month, but down at a much larger amount year over year. Even though volume was down month over month for the resale channel, there was an increase over last February while the auction channel showed opposite changes, up month over month and down year over year.

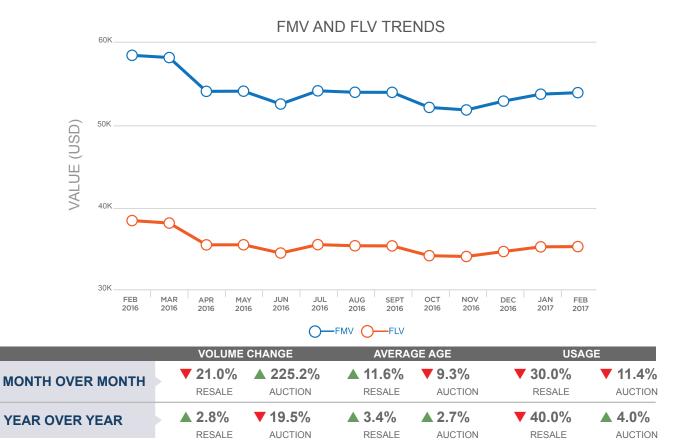
#### MARKET HIGHLIGHTS

- Average age on the resale channel increased over 11% and the average age at auction dropped more than 9% making the age gap between channels much smaller.
- Even though average age increased both month over month and year over year for the resale channel, the average usage dropped significantly showing a noticable shift in market inventory.
- The drops in FMV and FLV from last February were clear results of average age increases for the resale channel especially considering the drop in average usage.

13

#### MARKET FORECAST

Expect minimal changes to FMV and FLV going into March.





APRIL 19, 2016 VERSION: PREMIUM | UPDATED MONTHLY

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

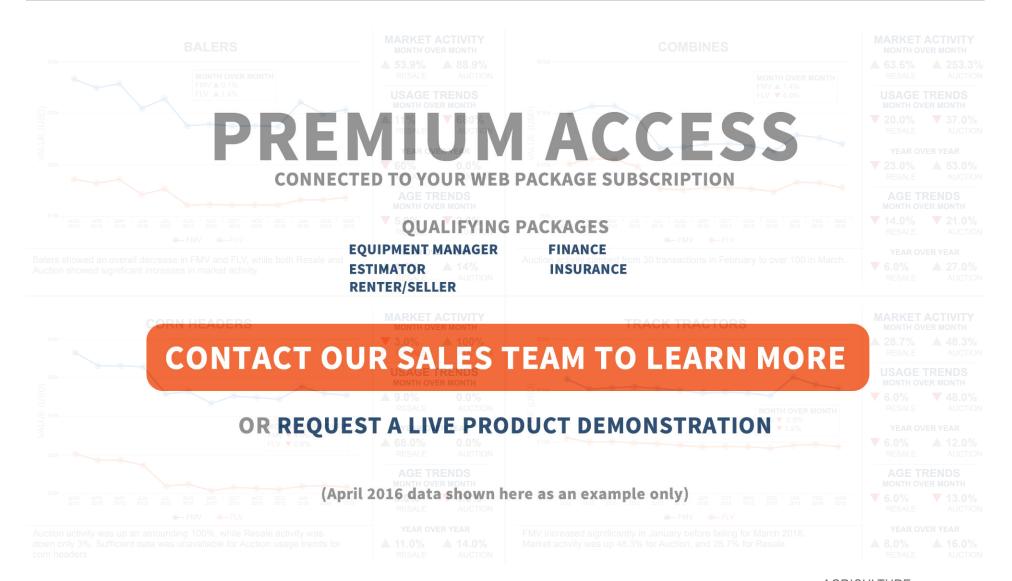
**AGRICULTURE** 

**OVERALL** 

**TYPE TRENDS** 

BRAND TRENDS

REGIONAL TRENDS



14

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

**COMMERCIAL TRUCK** 

**COMMERCIAL TRUCK** 

**OVERALL** 

TYPE TRENDS

BRAND TRENDS

**REGIONAL TRENDS** 

How is the Price Stability INDEX calculated?



#### MARKET PERFORMANCE

The month over month FMV and FLV changes were minimal despite the increases in average age for both channels. The volume was relatively stagnant for resale, but as expected increased significantly for auction.

### **MARKET HIGHLIGHTS**

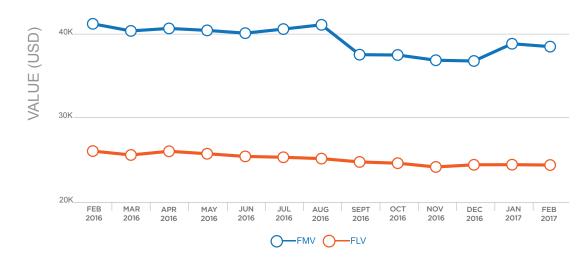
- Even though average age at auction increased both month over month and year over year, the average usage dropped.
- There were increases in volume year over year for both resale and auction channels along with average age increases indicating the reason behind FMV and FLV being down just over 6% from last year.
- As the resale channel showed positive changes across the board on volume, age, and utilization, FMV dropped 0.9% month over month.

#### **MARKET FORECAST**

If trends follow the past few years, auction volume will remain high going into March with resale volume holding steady before increases later in the year.

18





	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 1.2%	<b>▲ 795.6%</b>	<b>▲ 16.4%</b>	<b>▲ 23.5%</b>	<b>▲</b> 0.2%	<b>20.8%</b>
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION
YEAR OVER YEAR	<b>▲</b> 63.7%	<b>▲</b> 6.6%	<b>▲</b> 4.2%	▲ 18.4%	<b>▲</b> 15.9%	▼ 6.0%
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION

COMMERCIAL TRUCK

NEXT TYPE TRENDS

APRIL 19, 2016 VERSION: PREMIUM | UPDATED MONTHLY



SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

**COMMERCIAL TRUCK** 

**COMMERCIAL TRUCK** 

**OVERALL** 

**TYPE TRENDS** 

BRAND TRENDS

**REGIONAL TRENDS** 



19



**MARCH 23, 2017** 

**VERSION: FREE | UPDATED MONTHLY** 

# **APPENDIX**

### INTRODUCTION

The EquipmentWatch Market Report is a compilation of a wide array of EquipmentWatch's data, designed to bring you an in-depth look at used equipment markets over the last month.

This Appendix is designed to answer your questions regarding this report. Here we define and illustrate how we think about values, market activity, age, Usage, and regional influence for the most common types of equipment seen on used markets across North America.

#### **OUR DATA**

### **Selection Criteria for OEMs and Subtypes**

EquipmentWatch tracks Resale and Auction prices and activity for over 15,000 models across 389 manufacturers throughout North America. With over \$800 billion in collected equipment transactions. EquipmentWatch is your primary source for intelligence regarding used equipment markets.

The data in this report is divided into four distinct equipment markets: Construction, Lift/Access, Agriculture, and Commercial Trucks. For each market, we selected the top equipment types based on their market share from January 2015 to December 2015. They're listed in the table to the right.

23

Construction	Lift/Access	Agriculture	Commercial Trucks	
4-Wd Articulated Wheel Loaders	Electric Self Propelled Scissor Lifts	Track Tractors	Heavy Duty: Conventional - Sleeper (Heavy Tractor)	
Articulated Frame Graders	I.C. Pneumatic Tire Lift Trucks	Balers	Heavy Duty: Conventional - Day Cab (Heavy Tractor)	
Articulated Rear Dumps	I.C. Self Propelled Telescopic Boom Aerial Lifts	Combines	Heavy Duty: Conventional - Day Cab (Heavy Cab Chassis)	
Compact Track Loaders	I.C. Self-Propelled Articulating Boom Aerial Lifts	Corn Headers	Medium Duty: Conventional - Day Cab (Cab Chassis)	
Crawler Mounted Compact Excavators	Telescoping Boom Rough Terrain Lift Trucks	Wheel Tractors	Medium Duty: Cabover - Day Cab (Cab Chassis)	
Crawler Mounted Hydraulic Excavators	I.C. Cushion Tire Lift Trucks	Planters	Medium Duty: Crew (Cab Chassis)	
Large Generator Sets				
Single Drum Vibratory Compactors				
Skid Steer Loaders				
Standard Crawler Dozers				
Tandem Vibratory Compactors				
Tractor-Loader- Backhoes				

APPENDIX CONTINUED



## **APPENDIX**

We have also limited the scope of the EquipmentWatch Market Report to the following brands in each market:

Construction	Lift/Access	Agriculture	Commercial Truck	
Bobcat	Caterpillar	Deere	International	
Case	Genie	Case IH	Freightliner	
Caterpillar	JLG	New Holland	Volvo	
Deere	Sky Trak	Massey Ferguson	Kenworth	
Komatsu	Skyjack	Challenger	Peterbilt	
Volvo	Hyster	Kubota	Hino	

### THE EQUIPMENTWATCH PRICE STABILITY INDEX™

### Academic justification

The EquipmentWatch Price Stability Index™ is a new metric for understanding used equipment markets for used heavy equipment. It measures resale price capacity based on the movement of market prices and market activity among the equipment types and manufacturers presented above.

## **Methodology and Calculation**

The EquipmentWatch Price Stability Index™ is based on the Laspeyres Index, one of the many economic indices used to monitor changes in prices over time. To calculate it, we use the framework provided by the Laspeyres Index:

$$P_{L} = \frac{\sum (p_{c,t_{n}}) * (q_{c,t_{0}})}{\sum (p_{c,t_{0}}) * (q_{c,t_{0}})}$$

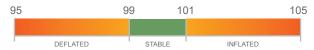
24

This equation sums the product of prices in the current month and quantity of the previous month and divides that by the product of prices in the previous month and quantity in the previous month.

We have modified this method to track the change in prices for each equipment type from month-to-month against the change in market activity for each equipment type month to month.

### Interpretation

The EquipmentWatch Price Stability Index<sup>™</sup> can be thought of as an index of price capacity. In more formal terms, it measures how efficiently used markets adjust to equilibrium given previous adjustments in prices and market activity. There are three primary ranges in the EquipmentWatch Price Stability Index<sup>™</sup>, as noted below:



When the EquipmentWatch Price Stability Index<sup>™</sup> is higher than 101, that indicates that equipment is valued at a higher level than expected, given last month's prices and amount of market activity. We categorize this range as "Inflated".

When the EquipmentWatch Price Stability Index<sup>™</sup> is lower than 99, it indicates that equipment is valued at a lower level than expected, given last month's prices and market activity. We categorize this range as "Deflated".

When the EquipmentWatch Price Stability Index™ is between 99 and 101, it is typically demonstrating that equipment prices and market activity are moving appropriately towards market equilibrium. We categorize this range as "Stable".

It is important to note that a higher rating on EquipmentWatch Price Stability Index™ does not necessarily imply that used markets are better than a lower rating. For some, price inflation is desirable; for others, it is undesirable. However, all parties involved in buying or selling equipment on used markets can use the EquipmentWatch Price Stability Index™ to easily understand how prices in a particular region or equipment channel are moving relative to the previous month.



## **APPENDIX**

#### SECTION GUIDES

#### The Introduction

In the top left, we exhibit a tally of the estimated market value of market activity last month in the Resale channel and Auction channel.

In the main table, we display market activity and assets for each market, along with month over month and year over year changes in Fair Market Value and Forced Liquidation Value.

#### **Overall Trends**

This page is an overview of each channel. The graph highlights an overall FMV and FLV trend line for all of the equipment types and manufacturers in the report for the last 13 months. It also displays very general month over month and year over year trends across the entire channel.

### **Type Trends**

This page subsets the analysis of the previous page across each of the key equipment types in this report.

#### **Brand Trends**

This page shows some of the key month over month trends for the manufacturers represented in this report, including equipment values, Usage, market activity, and age trends.

### **Regional Trends**

This page shows the EquipmentWatch Price Stability Index<sup>™</sup> for each of the 14 regions, using the same calculation method as the EquipmentWatch Price Stability Index<sup>™</sup> shown on the first page of the report. The states and provinces which make up each region are listed in the table to the right.

Note that due to regional disparity in market activity, some regions with very little or no market activity in the last month are excluded from the analysis. These are marked with "NA" on the map.

25

Country	Region	State/Province
USA	А	CT, DE, MA, ME, NH, NJ, MY, RI, VT
USA	В	MD, P, VA, WV
USA	С	AL, FL, GA, KY, MS, NC, SC, TN
USA	D	IL, IN, MI, OH, WI
USA	Е	IA, KS, MO, NE
USA	F	AR, LA, OK, TX
USA	G	AZ, CO, NM, UT
USA	Н	ID, MN, MT, ND, SD, WY
USA	I	CA, NV, OR, WA
USA	J	HI
USA	K	AK
CAN	L	NT, NU, YT
CAN	M	AB, BC, MB, SK
CAN	N	NB, NL, NS, ON, PE, QC

### **FAQS**

### Why did you limit the equipment types in this report?

EquipmentWatch tracks market activity for over a hundred unique equipment types each month. For each channel, we selected the most popular equipment types, based on the frequency of appearance on the resale and auction channels.

### Why are there only 24 manufacturers in this report?

EquipmentWatch tracks market activity for almost 400 unique manufacturers each month. For each market, we selected the top 6 manufacturers. As the markets shift and prominence on used markets changes, we will adjust our selections accordingly.



## **APPENDIX**

### Why don't you use OLV?

Orderly Liquidation Value, or OLV, is a third major category of values. These are the values of an asset given a single seller and multiple potential buyers given a long or indefinite timeframe in which to dispose. Given the lack of clarity around the time dimension, we have chosen not to make assumptions about the orderly liquidation process. However, OLV is typically between FLV and FMV in gross value.

#### IMPORTANT DEFINITIONS

**Fair Market Value (FMV)**: the value of an asset sold to a single buyer under no compulsion.

**Forced Liquidation Value (FLV)**: the value of an asset sold at a properly advertised and conducted auction in which the seller is under compulsion to sell on an as-is, where-is basis as of a specific date.

**Market Activity**: A measure of the total number of observations collected by EquipmentWatch, including publicly-available dealer listings, auction results, and final sales data.

**Meter Reads**: A measure of Usage that varies by equipment market. For most equipment types, this represents engine hours at the time of observation.

Age: the age of an asset, based on model year and the year of observation.

26

### **ABOUT EQUIPMENTWATCH**

EquipmentWatch is the trusted source for heavy equipment data and intelligence. EquipmentWatch produces the leading database information products for the construction equipment industry and is the world leader in heavy construction research and serves more than 15,000 professional, high-volume users of construction and lift-truck data. Our online and print products are valuable tools in decisions surrounding the purchase, valuation, operation, and disposal of equipment.

For nearly 50 years, EquipmentWatch has served contractors, equipment manufacturers, dealers, rental companies, lenders and insurers, and government agencies involved in heavy civil construction.

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